NCBI **results of BLAST**

BLASTP 2.2.9 [May-01-2004]

Reference:
Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1084309645-3090-115205537144.BLASTQ3

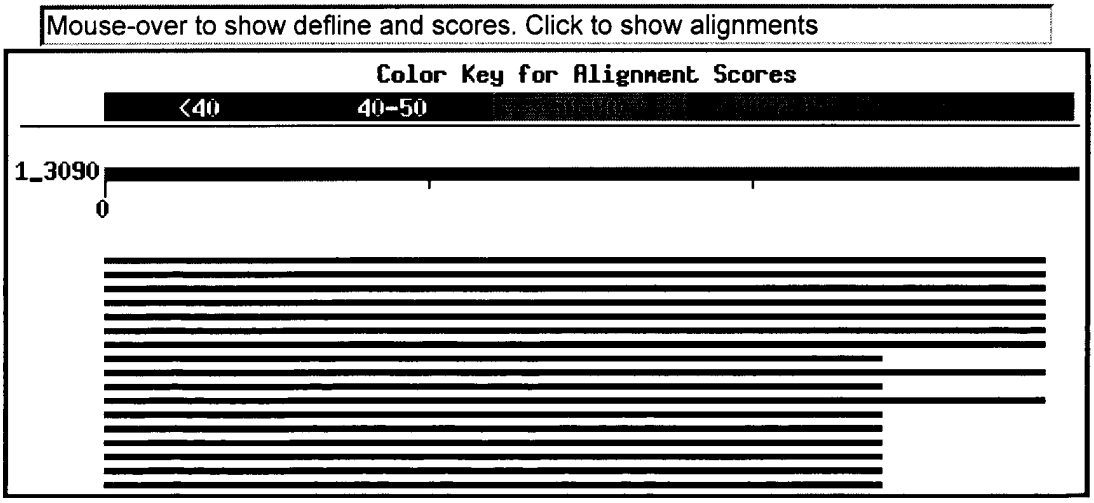
Query=
(30 letters)

Database: All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF excluding environmental samples
1,798,171 sequences; 593,787,773 total letters

If you have any problems or questions with the results of this search please refer to the **BLAST FAQs**

Taxonomy reports

Distribution of 17 Blast Hits on the Query Sequence



Related Structures

Sequences producing significant alignments:	Score (bits)	E Value	
gi|13124462|sp|Q9XT35|PTH_MACFA Parathyroid hormone precurs...	41	0.006	
gi|4506267|ref|NP_000306.1| parathyroid hormone preproprote...	40	0.011	L
gi|1709894|sp|P52212|PTHY_CANFA PARATHYROID HORMONE PRECURS...	40	0.015	L
gi|11119195|gb|AAG30545.1| preproparathyroid hormone [Felis...	39	0.035	
gi|163647|gb|AAA30749.1| preproparathyroid hormone	38	0.055	L
gi|131548|sp|P01269|PTHY_PIG PARATHYROID HORMONE PRECURSOR ...	38	0.062	L
gi|31982386|ref|NP_776379.2| parathyroid hormone [Bos tauru...	38	0.063	L
gi|209186|gb|AAA73011.1| parathyroid hormone >gi|565142|gb|...	36	0.20	
gi|8394100|ref|NP_058740.1| parathyroid hormone [Rattus nor...	35	0.37	L

gi|7416876|gb|AAF62347.1| parathyroid hormone [Equus caballus]	35	0.41	
gi|229314|prf||701028A parathyrin	34	0.63	
gi|30387856|gb|AAP32220.1| hypothalamic parathyroid hormone...	34	0.69	
gi|2118603|pir||I51851 parathyroid hormone - rat (fragment)...	33	1.2	
gi|10181174|ref|NP_065648.1| parathyroid hormone; parathyro...	33	1.3	L
gi|6980561|pdb|1BWX| The Solution Structure Of Human Parat...	33	1.9	S
gi|1065314|pdb|1HPH| Human Parathyroid Hormone Fragment 1 ...	31	5.4	S
gi|1942098|pdb|1ZWC| Structure Of Bovine Parathyroid Hormo...	31	6.9	S

Alignments

Get selected sequences | Select all | Deselect all

>gi|13124462|sp|Q9XT35|PTH_MACFA Parathyroid hormone precursor (Parathyrin) (PTH)
gi|5359716|gb|AAD42777.1| parathyroid hormone precursor [Macaca fascicularis]
Length = 115

Score = 41.2 bits (95), Expect = 0.006
Identities = 27/33 (81%), Positives = 27/33 (81%), Gaps = 3/33 (9%)

```
Query: 1  SVSEIQX-HNXGKHLNSXERVEWLR-KLQ-VHN 30
          SVSEIQ  HN GKHLNS ERVEWLR KLQ VHN
Sbjct: 32 SVSEIQLMHNLGKHLNSMERVEWLRKKLQDVHN 64
```

>gi|4506267|ref|NP_000306.1| L parathyroid hormone preproprotein; parathyrin; parathormone [Homo sapiens]
gi|131547|sp|P01270|PTHY_HUMAN L Parathyroid hormone precursor (Parathyrin) (PTH) (Parathormone)
gi|2144647|pir||PTHU parathyroid hormone precursor [validated] - human
gi|37144|emb|CAA23843.1| L unnamed protein product [Homo sapiens]
gi|190704|gb|AAA60215.1| L preproparathyroid hormone
Length = 115

Score = 40.4 bits (93), Expect = 0.011
Identities = 25/33 (75%), Positives = 25/33 (75%), Gaps = 3/33 (9%)

```
Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK--LQVHN 30
          SVSEIQ  HN GKHLNS ERVEWLRK    VHN
Sbjct: 32 SVSEIQLMHNLGKHLNSMERVEWLRKKLQDVHN 64
```

>gi|1709894|sp|P52212|PTHY_CANFA PARATHYROID HORMONE PRECURSOR (PARATHYRIN) (PTH)
gi|1085421|pir||JC4202 parathyroid hormone precursor - dog
gi|558916|gb|AAA82584.1| L parathyroid hormone precursor
Length = 115

Score = 39.7 bits (91), Expect = 0.015
Identities = 26/33 (78%), Positives = 27/33 (81%), Gaps = 3/33 (9%)

```
Query: 1  SVSEIQX-HNXGKHLNSXERVEWLR-KLQ-VHN 30
          SVSEIQ  HN GKHL+S ERVEWLR KLQ VHN
Sbjct: 32 SVSEIQFMHNLGKHLSSMERVEWLRKKLQDVHN 64
```

>gi|11119195|gb|AAG30545.1| preproparathyroid hormone [Felis catus]
Length = 115

Score = 38.5 bits (88), Expect = 0.035
Identities = 26/33 (78%), Positives = 27/33 (81%), Gaps = 3/33 (9%)

```
Query: 1  SVSEIQX-HNXGKHLNSXERVEWL-RKLQ-VHN 30
```

```
          SVSEIQ  HN GKHL+S ERVEWL RKLQ VHN
Sbjct: 32 SVSEIQFMHNLGKHLSSVERVEWLRRKLQDVHN 64
```

>gi|163647|gb|AAA30749.1| prepreproparathyroid hormone
Length = 115

```
 Score = 38.1 bits (87), Expect = 0.055
 Identities = 25/33 (75%), Positives = 27/33 (81%), Gaps = 3/33 (9%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLR-KLQ-VHN 30
          +VSEIQ  HN GKHL+S ERVEWLR KLQ VHN
Sbjct: 32 AVSEIQFMHNLGKHLSSMERVEWLRKKLQDVHN 64
```

>gi|131548|sp|P01269|PTHY_PIG PARATHYROID HORMONE PRECURSOR (PARATHYRIN) (PTH)
gi|2144646|pir||PTPG parathyroid hormone precursor - pig
gi|1839|emb|CAA29193.1| unnamed protein product [Sus scrofa]
Length = 115

```
 Score = 37.7 bits (86), Expect = 0.062
 Identities = 24/33 (72%), Positives = 25/33 (75%), Gaps = 3/33 (9%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK--LQVHN 30
          SVSEIQ  HN GKHL+S ERVEWLRK    VHN
Sbjct: 32 SVSEIQLMHNLGKHLSSLERVEWLRKKLQDVHN 64
```

>gi|31982386|ref|NP_776379.2| parathyroid hormone [Bos taurus]
gi|131545|sp|P01268|PTHY_BOVIN Parathyroid hormone precursor (Parathyrin) (PTH)
gi|69233|pir||PTBO parathyroid hormone precursor - bovine
gi|85|emb|CAA23439.1| prepreproparathyroid hormone [Bos taurus]
gi|163643|gb|AAA30747.1| prepreproparathyroid hormone
gi|163645|gb|AAA30748.1| prepreproparathyroid hormone
Length = 115

```
 Score = 37.7 bits (86), Expect = 0.063
 Identities = 23/33 (69%), Positives = 25/33 (75%), Gaps = 3/33 (9%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK--LQVHN 30
          +VSEIQ  HN GKHL+S ERVEWLRK    VHN
Sbjct: 32 AVSEIQFMHNLGKHLSSMERVEWLRKKLQDVHN 64
```

>gi|209186|gb|AAA73011.1| parathyroid hormone
gi|565142|gb|AAB31748.1| human parathyroid hormone; hPTH [synthetic construct]
Length = 85

```
 Score = 36.2 bits (82), Expect = 0.20
 Identities = 22/26 (84%), Positives = 22/26 (84%), Gaps = 1/26 (3%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK 25
          SVSEIQ  HN GKHLNS ERVEWLRK
Sbjct: 2  SVSEIQLMHNLGKHLNSMERVEWLRK 27
```

>gi|8394100|ref|NP_058740.1| parathyroid hormone [Rattus norvegicus]
gi|131549|sp|P04089|PTHY_RAT Parathyroid hormone precursor (Parathyrin) (PTH)
gi|92588|pir||A05091 parathyroid hormone precursor - rat
gi|56003|emb|CAA29192.1| unnamed protein product [Rattus norvegicus]
gi|206485|gb|AAA41979.1| prepreproparathyroid hormone
Length = 115

```
 Score = 35.0 bits (79), Expect = 0.37
 Identities = 23/33 (69%), Positives = 26/33 (78%), Gaps = 3/33 (9%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLR-KLQ-VHN 30
          +VSEIQ  HN GKHL S ER++WLR KLQ VHN
Sbjct: 32 AVSEIQLMHNLGKHLASVERMQWLRKKLQDVHN 64
```

>gi|7416876|gb|AAF62347.1| parathyroid hormone [Equus caballus]

```
          Length = 86

 Score = 35.0 bits (79), Expect = 0.41
 Identities = 22/26 (84%), Positives = 22/26 (84%), Gaps = 1/26 (3%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK 25
          SVSEIQ  HN GKHLNS ERVEWLRK
Sbjct: 3  SVSEIQLMHNLGKHLNSVERVEWLRK 28
```

>gi|229314|prf||701028A parathyrin

```
          Length = 84

 Score = 34.3 bits (77), Expect = 0.63
 Identities = 20/26 (76%), Positives = 22/26 (84%), Gaps = 1/26 (3%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK 25
          +VSEIQ  HN GKHL+S ERVEWLRK
Sbjct: 1  AVSEIQFMHNLGKHLSSMERVEWLRK 26
```

>gi|30387856|gb|AAP32220.1| hypothalamic parathyroid hormone [Rattus sp.]

```
          Length = 105

 Score = 34.3 bits (77), Expect = 0.69
 Identities = 21/33 (63%), Positives = 24/33 (72%), Gaps = 3/33 (9%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK--LQVHN 30
          +VSEIQ  HN GKHL S ER++WLRK    VHN
Sbjct: 22 AVSEIQLMHNLGKHLASVERMQWLRKKLQDVHN 54
```

>gi|2118603|pir||I51851 parathyroid hormone - rat (fragment)
gi|601933|gb|AAA57156.1| parathyroid hormone precursor [Rattus norvegicus]

```
          Length = 105

 Score = 33.5 bits (75), Expect = 1.2
 Identities = 17/26 (65%), Positives = 21/26 (80%), Gaps = 1/26 (3%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK 25
          ++SEIQ  HN GKHL S ER++WLRK
Sbjct: 22 AISEIQLMHNLGKHLASVERMQWLRK 47
```

>gi|10181174|ref|NP_065648.1| parathyroid hormone; parathyroid hormone precursor [Mus musculus]
gi|4092930|gb|AAC99656.1| parathyroid hormone precursor [Mus musculus]

```
          Length = 115

 Score = 33.5 bits (75), Expect = 1.3
 Identities = 17/26 (65%), Positives = 21/26 (80%), Gaps = 1/26 (3%)

Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK 25
          +VSEIQ  HN GKHL S ER++WLR+
Sbjct: 32 AVSEIQLMHNLGKHLASMERMQWLRR 57
```

☐ >gi|6980561|pdb|1BWX| S The Solution Structure Of Human Parathyroid Hormone Fragment 1-39, Nmr, 10 Structures
Length = 39

Score = 32.7 bits (73), Expect = 1.9
Identities = 22/26 (84%), Positives = 22/26 (84%), Gaps = 1/26 (3%)

```
Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK 25
          SVSEIQ  HN GKHLNS ERVEWLRK
Sbjct: 1  SVSEIQLMHNLGKHLNSMERVEWLRK 26
```

☐ >gi|1065314|pdb|1HPH| S Human Parathyroid Hormone Fragment 1 - 37 (Hpth(1-37)) (Nmr, 10 Structures)
Length = 37

Score = 31.2 bits (69), Expect = 5.4
Identities = 22/26 (84%), Positives = 22/26 (84%), Gaps = 1/26 (3%)

```
Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK 25
          SVSEIQ  HN GKHLNS ERVEWLRK
Sbjct: 1  SVSEIQLMHNLGKHLNSMERVEWLRK 26
```

☐ >gi|1942098|pdb|1ZWC| S Structure Of Bovine Parathyroid Hormone Fragment 1-37, Nmr, 10 Structures
Length = 37

Score = 30.8 bits (68), Expect = 6.9
Identities = 20/26 (76%), Positives = 22/26 (84%), Gaps = 1/26 (3%)

```
Query: 1  SVSEIQX-HNXGKHLNSXERVEWLRK 25
          +VSEIQ  HN GKHL+S ERVEWLRK
Sbjct: 1  AVSEIQFMHNLGKHLSSMERVEWLRK 26
```

Get selected sequences | Select all | Deselect all

Database: All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF excluding environmental samples
Posted date: May 11, 2004 12:59 AM
Number of letters in database: 593,787,773
Number of sequences in database: 1,798,171

Lambda	K	H
0.312	0.127	0.375

Gapped

Lambda	K	H
0.267	0.0410	0.140

Matrix: BLOSUM62
Gap Penalties: Existence: 11, Extension: 1
Number of Hits to DB: 6,490,304
Number of Sequences: 1798171
Number of extensions: 68202
Number of successful extensions: 75
Number of sequences better than 10.0: 6
Number of HSP's better than 10.0 without gapping: 6
Number of HSP's successfully gapped in prelim test: 0
Number of HSP's that attempted gapping in prelim test: 69
Number of HSP's gapped (non-prelim): 6
length of query: 30
length of database: 593,787,773
effective HSP length: 5
effective length of query: 25

```
effective length of database: 584,796,918
effective search space: 14619922950
effective search space used: 14619922950
T: 11
A: 40
X1: 16 ( 7.2 bits)
X2: 38 (14.6 bits)
X3: 64 (24.7 bits)
S1: 42 (21.9 bits)
S2: 68 (30.8 bits)
```